

Print selected from Online sessionPage 1

(FILE 'HOME' ENTERED AT 14:39:58 ON 15 MAR 2002)

FILE 'BIOSIS, EMBASE, CAPLUS, MEDLINE, CANCERLIT' ENTERED AT 14:40:26 ON  
15 MAR 2002

L1 8546 S RECOMBINASE  
L2 2467 S L1 AND CRE  
L3 104 S L2 AND RETROVIRAL  
L4 1140 S L1 AND FLP  
L5 3365 S L2 OR L4  
L6 132 S L5 AND RETROVIRAL  
L7 1 S L6 AND EXTINGUISH

d 17 ti abs ibib

L7 ANSWER 1 OF 1 CAPLUS COPYRIGHT 2002 ACS  
TI Self-extinguishing **recombinases** and their use in expression vectors and genetic engineering  
AB Nucleic acid mols. are provided comprising at least a first signal site and a **recombinase** gene operably linked to an expression control sequence. Upon entry into a cell, there is a first signal site and a second signal site positioned to mediate excision of a sufficient portion of either the **recombinase** gene or the expression control sequence to **extinguish recombinase** activity when the first and second signal sites are contacted with a **recombinase**. Self-excision by a selected **recombinase** (**Cre** or **Flp**) of its own coding sequence limits the duration and intensity of the **recombinase** expression so that the **recombinase** expression is sufficient for deletion of a sequence flanked on each side by a signal site, and then further **recombinase** expression is terminated. In one example, two signal sequences (e.g., loxP sites) in a second nucleic acid mol. are in the same, or direct, orientation with respect to one another. Such signal sequences can flank the target gene so that expression of the **recombinase** results in excision of the target gene and inactivation of expression of the target gene; flank a pos. regulatory element of the target gene so that expression of the **recombinase** results in excision of the pos. regulatory element and inactivation of expression of the target gene; or flank a neg. regulatory element of the target gene so that expression of the **recombinase** results in excision of the neg. regulatory element and activation of expression of the target gene. This system eliminates **recombinase**-mediated toxicity or other undesired effects, but yet retains the ability to effect site-specific recombination. Vectors of the invention are useful as research reagents, as well in the in vivo controlled delivery of diagnostic and therapeutic agents, and in the prodn. of agriculturally important transgenic plants, transgenic animals useful in research, and transgenic proteins.

ACCESSION NUMBER: 2001:781104 CAPLUS  
DOCUMENT NUMBER: 135:340187  
TITLE: Self-extinguishing **recombinases** and their use in expression vectors and genetic engineering  
INVENTOR(S): Livingston, David M.; Silver, Daniel P.  
PATENT ASSIGNEE(S): Dana-Farber Cancer Institute, USA  
SOURCE: PCT Int. Appl., 56 pp.  
CODEN: PIXXD2  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001079471	A2	20011025	WO 2001-US12193	20010412
W: CA, JP, US				
RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL,				
PT, SE, TR				
PRIORITY APPLN. INFO.:			US 2000-196338	P 20000412

## WEST Search History

DATE: Friday, March 15, 2002

<u>Set Name</u> side by side	<u>Query</u>	<u>Hit Count</u>	<u>Set Name</u> result set
<i>DB=USPT,PGPB,JPAB,EPAB,DWPI,TDBD; PLUR=YES; OP=ADJ</i>			
L4	L3 and extinguish	0	L4
L3	L2 and retroviral	335	L3
L2	L1 and (cre or flp)	590	L2
L1	recombinase	1077	L1

END OF SEARCH HISTORY